

What is claimed is:

- [Claim 1]** 1. A bicycle shift control apparatus comprising:
a threshold value setting unit that sets a threshold value of a running condition for shifting a bicycle transmission;
a decision unit that decides if a current running condition value passes the threshold value;
a tentative shift unit that sets a tentative shift of the bicycle transmission when the decision unit decides that the current running condition value passes the threshold value; and
a canceling unit that cancels the tentative shift if the decision unit decides that the current running condition value varies from a previous running condition value by a predetermined value.
- [Claim 2]** 2. The apparatus according to claim 1 further comprising a control unit that provides a signal to shift the bicycle transmission when the decision unit decides that the current running condition value passes the threshold value a plurality of times.
- [Claim 3]** 3. The apparatus according to claim 2 wherein the control unit provides the signal to shift the bicycle transmission when the decision unit decides that the current running condition value passes the threshold value a plurality of times consecutively.
- [Claim 4]** 4. The apparatus according to claim 2 wherein the control unit provides a signal to upshift the bicycle transmission when the decision unit decides that the current running condition value passes the threshold value a plurality of times.
- [Claim 5]** 5. The apparatus according to claim 4 wherein the control unit provides the signal to upshift the bicycle transmission when the decision unit decides that the current running condition value passes the threshold value a plurality of times consecutively.
- [Claim 6]** 6. The apparatus according to claim 4 wherein the control unit immediately provides a signal to downshift the bicycle transmission when the decision unit decides that the current running condition value passes the threshold value.

[Claim 7] 7. The apparatus according to claim 1 wherein the current running condition comprises bicycle speed.

[Claim 8] 8. The apparatus according to claim 7 wherein the decision unit is adapted to receive a plurality of the running condition values for a single revolution of a bicycle wheel.

[Claim 9] 9. The apparatus according to claim 8 wherein the decision unit is adapted to receive the plurality of running condition values from an alternating current generator.

[Claim 10] 10. The apparatus according to claim 1 wherein the current running condition comprises crank RPM.

[Claim 11] 11. The apparatus according to claim 1 wherein the decision unit decides whether the current running condition value passes the threshold value for a predetermined time period.

[Claim 12] 12. The apparatus according to claim 11 further comprising a control unit that provides a signal to shift the bicycle transmission when the decision unit decides that the current running condition value passes the threshold value for the predetermined time period.

[Claim 13] 13. The apparatus according to claim 12 wherein the control unit provides a signal to upshift the bicycle transmission when the decision unit decides that the current running condition value passes the threshold value for the predetermined time period.

[Claim 14] 14. The apparatus according to claim 1 wherein the canceling unit cancels the tentative shift if the decision unit decides that the current running condition value exceeds the previous running condition value by the predetermined value.

[Claim 15] 15. The apparatus according to claim 1 wherein the threshold value setting unit sets an upshift threshold value and a downshift threshold value, wherein the tentative shift unit sets a tentative upshift of the bicycle transmission when the decision unit decides that the current running condition value passes the upshift threshold value, wherein the canceling unit cancels the tentative upshift if the decision unit decides that the current running condition value varies from the previous running condition value by the predetermined value, and further comprising:

a first control unit that provides a signal to upshift the bicycle transmission when the decision unit decides that the current running condition value passes the upshift threshold value a plurality of times; and
a second control unit that provides a signal to downshift the bicycle transmission when the decision unit decides that the current running condition value passes the downshift threshold value.

[Claim 16] 16. The apparatus according to claim 15 wherein the first control unit provides the signal to upshift the bicycle transmission when the decision unit decides that the current running condition value passes the upshift threshold value a plurality of times consecutively.

[Claim 17] 17. The apparatus according to claim 15 wherein the decision unit decides whether the current running condition value passes the upshift threshold value for a predetermined time period.

[Claim 18] 18. The apparatus according to claim 17 wherein the first control unit provides the signal to upshift the bicycle transmission when the decision unit decides that the current running condition value passes the upshift threshold value for the predetermined time period.

[Claim 19] 19. The apparatus according to claim 15 wherein the second control unit immediately provides a signal to downshift the bicycle transmission when the decision unit decides that the current running condition value passes the downshift threshold value.

[Claim 20] 20. The apparatus according to claim 15 wherein the current running condition comprises bicycle speed.

[Claim 21] 21. The apparatus according to claim 15 wherein the current running condition comprises crank RPM.

